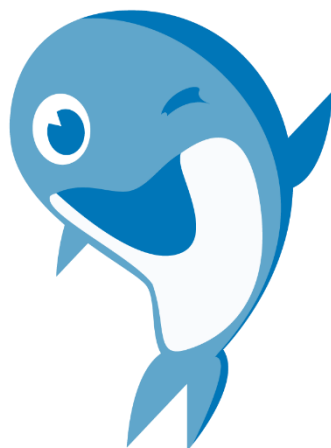




INTERNATIONAL CONFERENCE ON SUSTAINABILITY EDUCATION

19 & 20th September 2024: India Habitat Centre, New Delhi



TAKT



SPECIAL PLENARY SESSION

Mobilizing Green Chemistry to Beat the Plastic Pollution

(Focus on Eco-Restoration in Biosphere Reserves)

19th September 2024, Stein Auditorium, India Habitat Centre; 14:30 to 15:45 hrs

Rationale

Plastic pollution is a global crisis that transcends national borders and negatively impacts human and environmental health, food and water security, forests, biodiversity, oceans and mountains. There is an urgent need for action to find and implement solutions to better protect oceans, coasts and other ecosystems from further pollution, and to reduce and eliminate the current massive amounts of plastic waste. This will of course require better production and consumption patterns, but this alone will not be enough, given the current

trend in global statistic and world population development. UNESCO's contribution in the UN system is to mobilize science and education to address the triple planetary crisis. This is being promoted in schools and universities. *In situ* demonstration areas are also needed. This is why the UNESCO Plastic Initiative was launched in Vietnam, in 2019, with the specific objective of using UNESCO-designated sites, including the global network of UNESCO Biosphere Reserves, as places to test, apply and develop good plastic-management practices. Since the launch of the UNESCO Plastic Initiative, numerous activities have taken place, even though, significantly disrupted by the Covid-19 pandemic. Now is the time to bring together many different actors, mainly from academia and business, to set up demonstration centers that can then serve as models with a multiplier effect for large-scale replication.

About the Session

The Special Session will include two panel discussions of 40 minutes each (total 80 minutes), and a follow-up discussion, with panelists from Bangladesh, India and Thailand followed by 10 minutes for questions and answers.

PANEL 1:

Moderator: Mr. Benno Böer, UNESCO New Delhi

Addressing the Issue and the Role that UNESCO Coastal Biosphere Reserves can play

1. Najmus Khan, Noakhali Science & Technology University, Noakhali, Bangladesh
2. Arvind Sahu, Regional Center for Biotechnology, Faridabad, India
3. Lipika Sharma, QUEST4ACTION (Switzerland & India)

PANEL 2:

Moderator: Ms. Neha Midha, UNESCO New Delhi

Solutions: Bringing Academia and Business Together

4. Tammarat Kootateb, Asian Institute of Technology, Bangkok, Thailand
5. Vimal Katiyar, Indian Institute of Technology, Guwahati, India
6. Christian Walter, TAKT Ltd., Bangkok, Thailand
7. Pansa Liplap, Suranaree University of Technology, Nakhon Ratchasima, Thailand

Each speaker will have 5 minutes for a statement, how he/she would like to contribute reducing the massive problem of plastic pollution with macro-, micro-, and nano-plastic. Moreover, each speaker will receive one question on how synergy-opportunities between academia and entrepreneurship need to be fostered, on one hand to clean-up coastal, riverine, and marine ecosystems, and, on the other hand, how to avoid plastic to be released into these ecosystems in the first place.

What role could UNESCO Biosphere Reserves play? Is it advisable to mobilize the UNESCO World Network of Biosphere Reserves, to address the issue with practical actions, including an attempt to establish three coastal Biosphere Reserves in Bangladesh, India, and Thailand, with a view to focus on 'Plastic-Management'?

As a closing question, each panelist would be asked to provide their top global and local policy recommendation on the topic and finally the moderator/chair will summarize key takeaway messages from the two panel discussions.

After the panel discussion, these experts will get together with specialists from UNESCO, and further discuss the option to establish one, two or three Biosphere Reserves in South and South-East Asia, with clear suggestions to function as models for Plastic-Waste-Management. This will include the formulation of one or several clear ideas on how to move from knowing the issues and clean-up operations, to practical science-based activities that lead to more and better entrepreneurship and better environments conducive for the green economy, via the inter-action of academia and business.

Objectives

The session will aim to mobilize green and sustainable chemistry to find creative and innovative solutions to reduce waste, conserve energy, using life cycle considerations such as the use of more sustainable or renewable feedstocks and designing for end of life or the final disposition of the product. Some of the specific objectives of the session are as below:

1. To formulate clear ideas towards practical science-based activities that lead to more and entrepreneurship in the green economy, and better environmental health of urban and natural ecosystems via the inter-action of academia and business.
2. To devise management options in Biosphere Reserves, to reduce plastic pollution.
3. To mobilize young professionals through the joint capacities of UNESCO Natural Science Divisions, in particular through its STI capacity, to benefit Biosphere Reserves as demonstration sites.
4. Start a dialogue towards establishing coastal Biosphere Reserves in Bangladesh, India, and Thailand, with a focus on 'Plastic-Management'.

Expected Outcome

The prime idea that will be developed can be further refined in 2025, with a follow-up event in Thailand, with the same partners, including a field-excursion to the Island of Koh Chang, Trat Governorate, Thailand.

1. A joint Green Chemistry Initiative led by RCB-India, IIT-Gauhati, AIT, and Suranaree University, based on this session, that will be further developed throughout 2024 and 2025, and open for additional partners, supporters and stakeholders.
2. Decision to establish one coastal Biosphere Reserve in Bangladesh, one coastal Biosphere Reserve in Thailand (with a view to Koh Chang), focusing on good and

science-based plastic-waste-management, and to strengthen one existing coastal Biosphere Reserve in India, with the same view, and working in a long-term, and open partnership with each other, a partnership that will be open for the international World Network of Biosphere Reserves.